Problem	1	2	3	4a	4b	4c	5	6	7	8
Standard	3.OA.B.5	3.OA.B.5	5.OA.A.2	4.OA.B.4	4.OA.B.4	4.OA.B.4	5.OA.B.3	5.NF.A.1	5.NBT.A.2	5.NF.B.4
Content	distributive	commutative	write expressions	factors	factors	factors	rules for input/output	add/sub fractions	powers of 10	mult fractions
Correct Answe	A	3 groups of 6 dots	2(31,500+2,450-3,310) or equivalent	12	8	5 not a factor of 24	A	17/20	C	C
Student 1	A	3 groups of 6 dots	added 2,450 and 3,310	24	8	5 does not go into 24	B and D	no answer	C	D
Student 2	A	3 groups of 6 dots	found score, no expression	2 groups of 12	3 groups of 11	won't add up to 24	D	6/5.	C	B
Student 3	A	3 groups of 6 dots	31,500+2,450-3,310	12	8	it will be a odd number than a even	A	9/20.	D	C
Student 4	A	3 groups of 6 dots	no expression, found correct game score	12	8	his number don't equal 24	D	1/9.	C	D
Student 5	A	3 groups of 6 dots	10, 400	11 (mistake in work	8	they go past 24 the go up to 25	A	14/19	C	B
Student 6	A	3 groups of 6 dots	no expression, found correct game score	12	8	5 can not go into 24	A	17/20	C	C
Student 7	A	3 groups of 6 dots	rewrote info from the problem	12	8	5 is odd, 24 is even, he will get to 25	A - work for rule 1 only	8/6.	A	C
Student 8	A	3 groups of 6 dots	put -3310, 2450, 4900 on number line	12	8	5 doesn't go into 25	checked A, C, D	17/20	C	C
Student 9	A	3 groups of 6 dots	computed 2450 - 3310 + 2450	12	8	5 doesn't land on 24 when you count it	A	8/24.	B	C
Student 10	A	3 groups of 6 dots	no answer	12 x 2	8 x 3	5 cannot go into 24	identified one rule per table	0/5.	C	C
Student 11	A	3 groups of 6 dots	no expression, found incorrect game score	11	8	because it's gone be over 24	dentified one rule for A and B	1/10.	C	D
Student 12	A	3 groups of 6 dots	2450 - 3310 x 2 = 2280 (no order of operations	12	8	they don't go in evenly	A - "I did the work"	0	D	C
Student 13	A	wrote "6 x 6"	no answer	no answer	no answer	no answer	B	0/1.	A	C
Student 14	C	3 groups of 6 dots	no expression, found incorrect game score	11 more eyes	7 more eyes	24 doesn't go into 5; 5, 10, 15, 20, 25	"A and B have the input"	6/10.	D	C
Student 15	A	3 groups of 6 dots	no expression, found correct game score	12	8	24 is not a factor of 5	Wrote "no" w/ explanation	31/20.	C	C
Student 16	A	3 groups of 6 dots	no expression, found incorrect game score	12	8	5, 10, 15, 20, 25. It skips 24.	A (no explanation)	14/19	C	D
Student 17	B	drew 20 squares	computed 3310 - 2450	no answer	"the three eyed"	no answer	"A and B cause it shows"	no answer	B	A
Student 18	A	described 6x3 model	computed 3450 + 3310	11	8	because you can't multiply 5 to get 24	A - "it has the 2 in the input"	no answer	C	D
Student 19	D	raw bars with 3 and 6 part	3310 - 2450 x 2	12	8	"goes from 20 - 25 not 24"	and D (work for rule 1 shown	1	C	C
Student 20	A	3 groups of 6 dots	ncorrectly computed 2450 - 3310 and doubled	12	8	"won't add up to 24...going to go over"	D	1	C	C
Student 21	C	3 groups of 6 dots	mputed 2450 + 3310 + 5760 (sum of 2 previou	8	8	"it would be 29 not 24" (model shown)	A	2 and 1/9	C	C
Student 22	A	3 groups of 6 dots	computed 31500 + 2450 - 3310	12	8	24 is not a multiple of 5	A	17/20	D	C
Student 23	D	described 6x3 model	40,100	13	8	15 more	C (11 x 11 + 5 = 4...)	13/19	C	C
FULL CREDIT	78%	78%	0% (FULL)	52% (FULL)	78% (FULL)	9% (FULL)	26% (FULL)	13% (FULL)	65%	65%
PARTIAL CREDIT			22% (PARTIAL)	13% (PARTIAL)	4% (PARTIAL)	57% (PARTIAL)	30% (PARTIAL)	13% (PARTIAL)		
NO CREDIT	22%	22%	78% (NO CREDIT)	35% (NO CREDIT)	18% (NO CREDIT)	35% (NO CREDIT)	43% (NO CREDIT)	74% (NO CREDIT)	35%	35%